

CLAIMS

1. A hinge device including a first and a second turnable members turnably connected to each other about a turning axis, and biasing means for biasing at least one of said first and second turnable members toward the other along said turning axis, one of said first and second turnable members being provided at a confronting surface thereof with a projection part projecting toward a confronting surface of the other turnable member and pressed against the confronting surface of the other turnable member by said biasing means, the other turnable member being provided at the confronting surface with a first, a second and a third recess formed on a circumference about said turning axis, said first recess being provided at a side part thereof located on the opposite side to said second recess with a first cam face which is abutted with said projection part to convert a biasing force of said biasing means to a turn biasing force in one direction about said turning axis, said second recess being provided at a side part thereof located on the opposite side to said first recess with a second cam face which is abutted with said projection part to convert the biasing force of said biasing means to a turn biasing force in the reverse direction, said third recess being provided at both side parts thereof in a peripheral direction of the confronting surface of the other turnable member with a pair of lock faces which are abutted with the both side parts of said projection part to prohibit said first and second turnable members from making a relative turn with force of a predetermined magnitude, said first and second cam faces being symmetrically arranged with respect to a straight line orthogonal to said turning axis and passing through a center in a peripheral direction between said pair of lock faces.
2. A hinge device according to claim 1, wherein said first and second recesses are continuous with each other in the peripheral direction of the confronting surface of the other turnable member and constitute a single recess as a whole.

3. A hinge device according to claim 1 or 2, further including a first and a second hinge members turnably connected to each other about said turning axis, one of said first and second turnable members being connected to said first hinge member such that said turnable member is non-turnable but movable in a direction of said turning axis, the other turnable member being connected to said second hinge member such that the other turnable member is non-turnable and prohibited from moving away from said one turnable member beyond a predetermined position in the direction of said turning axis.